

Serial No.: 09/866,530

2 August 2005

Amendments to the Claims:

Please amend claim 1 and add claims 12-20. This listing of claims will replace the prior version of claims in the Application:

1. (Currently amended) An apparatus for providing, to a digital system, data indicative of the motion of an object, said apparatus comprising:

an elongated member translatable in an axial direction along a longitudinal axis thereof and rotatable in a circumferential direction about said longitudinal axis;

a swing arm having a distal section for attachment to the object and a proximal section coupled to said elongated member such that movement of the object results in corresponding movement of said elongated member; and

an engagement surface for engaging an input device of the digital system, said engagement surface being attached to said elongated member such that movement of said elongated member results in corresponding movement of said engagement surface.

such that, when said ~~engagement~~ input device is placed in contact with said engagement surface, movement of said engagement surface is conveyed to the digital system via said ~~engagement~~ input device.

2. (Original) The apparatus of claim 1 wherein said elongated member comprises a cylinder.

3. (Original) The apparatus of claim 2 wherein said cylinder has a circular cross section.

4. (Original) The apparatus of claim 1 wherein said elongated member comprises a prism.

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5. (Original) The apparatus of claim 1 wherein said engagement surface is textured to frictionally engage a tracking ball.
6. (Original) The apparatus of claim 1 wherein said engagement surface includes a plurality of reflective regions for optically engaging an optical input device.
7. (Original) The apparatus of claim 1 wherein said engagement surface includes a plurality of magnetic regions for magnetically engaging a magnetic input device.
8. (Original) The apparatus of claim 1 wherein said engagement surface comprises a surface of said elongated member.
9. (Original) The apparatus of claim 1 further comprising an axial element coupled to said proximal section of said swing arm, said axial element being attached to said elongated member such that motion of said swing arm in a first direction results in corresponding motion of said elongated member in said circumferential direction.
10. (Original) The apparatus of claim 1 further comprising a pivoting element coupled to said proximal section of said swing arm and pivotably coupled to said elongated element such that motion of said swing arm in a second direction results in corresponding motion of said elongated member in said axial direction.
11. (Original) The apparatus of claim 10 wherein said pivoting element comprises a bracket having:
 - a first arm substantially parallel with said longitudinal axis and attached to said elongated member such that axial translation of said first arm results in axial translation of said elongated member;
 - a second arm substantially parallel to said first arm, said second arm being connected to said swing arm such that movement of said swing arm in said second direction results in axial translation of said second arm; and

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a crosspiece connecting said first arm and said second arm such that axial translation of said second arm results in axial translation of said first arm.

12. (New) The apparatus of claim 1 wherein the object comprises a member of the group consisting of a baseball, a golf ball, and a soccer ball.
13. (New) The apparatus of claim 6 wherein said apparatus further comprises a computer input peripheral device, said computer input peripheral device including said optical input device and an electronic microprocessor, said electronic microprocessor for inputting to the digital system data indicative of the movement of said elongated member.
14. (New) The apparatus of claim 13 wherein said computer input peripheral device comprises a computer mouse.
15. (New) The apparatus of claim 7 wherein said apparatus further comprises a computer input peripheral device, said computer input peripheral device including said magnetic input device and a signal output wire, said signal output wire for inputting to the digital system data indicative of the movement of said elongated member.
16. (New) A method for providing, to a digital system, data indicative of the motion of an object, said method comprising the steps of:
 - positioning a computer peripheral input device against an elongated member, said elongated member translatable in an axial direction along a longitudinal axis thereof and rotatable in a circumferential direction about said longitudinal axis;
 - providing a swing arm having a distal section for attachment to the object and a proximal section coupled to said elongated member such that movement of the object results in corresponding movement of said elongated member; and

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providing an engagement surface on said elongated member, said engagement surface for engaging an input device of the digital system, said engagement surface attached to said elongated member such that movement of said elongated member results in corresponding movement of said engagement surface.

17. (New) The method of claim 16 wherein said computer input peripheral device comprises a member of the group consisting of a tracking ball, an optical input device, and a magnetic input device.

18. (New) The method of claim 17 wherein said engagement surface comprises a plurality of reflective regions for optically engaging said optical input device.

19. (New) The method of claim 17 wherein said engagement surface comprises a plurality of magnetic regions for magnetically engaging said magnetic input device.

20. (New) The method of claim 16 further comprising the step of providing data to the digital system, said data indicative of the movement of said elongated member.